Syo KUROKAWA*: A note on some rare lichens of Japan

黒川 逍*: 日本稀産地衣四種について

(Pl. XVIII)

In this paper, new localities will be reported for *Letharia togashii* Asah., *Parmelia erumpens* Kurok., *P. grayana* Hue, and *Sticta limbata* (Sm.) Ach. Of these species, *P. erumpens* and *S. limbata* are new to Japan and the other two are apparently rare species in Japan.

1) **Letharia togashii** Asahina, Journn. Jap. Bot. 27: 295, 1952.

Letharia togashii has been recorded only from two localities in Japan; the *Picea polita* forest at the base of Mt. Fuji and the upper region of the Ishikari River, Hokkaido (Asahina, 1954). In 1965, however, I collected the species at two localities in Hokkaido. While *L. togashii* is apparently very rare in Honshu, it seems to be rather common on trunks of both *Picea glehnii* (Pl. XVIII, fig. 1) and *Abies sachalinensis* in Hokkaido.

Specimens examined. Hokkaido. Prov. Nemuro: Ochiishi, elevation about 50 m, on trunks of *Picea glehnii*. S. Kurokawa 65790 (TNS) and 65831 (TNS). Prov. Kushiro: Mt. O-Akan, elevation about 460 m, on trunks of *Abies sachalinensis*. S. Kurokawa 65650 (TNS) and 65651 (TNS).

2) **Parmelia erumpens** Kurok., Lich. Rar. Crit. Exs. no. 74, 1969.

Parmelia tenuirima Hook. et Tayl. f. *corallina* Müll. Arg., Flora 66: 46, 1863. Type collection: Ad Mitchell River, Queensland, Australia. *Ross* s.n.—lectotype in G and isotype in UPS, US.

Parmelia erumpens belongs to subsection Parmelia, section Parmelia, subgenus Parmelia and is one of the commonest species of *Parmelia* in Australia and Tasmania, usually growing on rocks (Pl. XVIII, fig. 3). It also occurs in Java and Sumatra. In 1963, Dr. S. Nakanishi collected a specimen of this species en route from Lo-lo to Tui-kuan in central Taiwan (Formosa). It is surprising that this species was found at Mt. Horaiji in central Japan. Although the geographical distribution of *P. erumpens* has not yet been reported, the range now includes Japan, Taiwan, Java, Sumatra, Australia, and Tasmania. As shown in fig. 1, *P. erumpens* shows the Australia-eastern Asian distribution.

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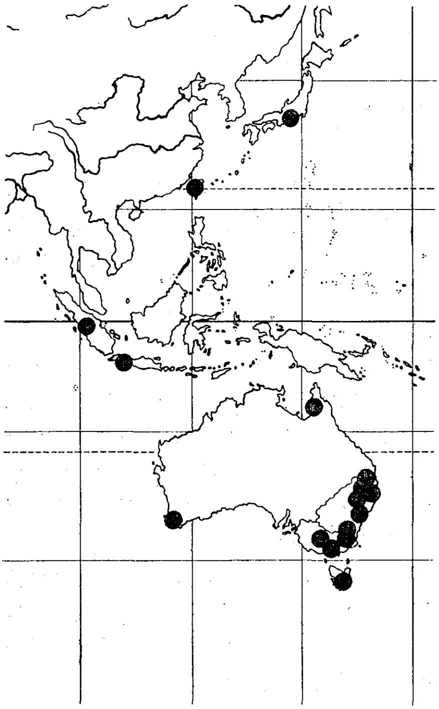

Fig. 1. Distribution of *Parmelia erumpens* Kurok.

This species is clearly distinguished from other species of the subsection Parmelia by the presence of pustules. It produces atranorin and salacinic acid but neither lobaric nor fatty acid.

Specimens examined. JAPAN. Prov. Mikawa: Mt. Horaiji, on stone work. S. Kurokawa 66032 (TNS). TAIWAN. Prov. Nantow (南投縣): En route from Lo-lo (楽々) to Tuikuan (對關), elevation about 1790 m, on trunk of deciduous tree. S. Nakanishi 12736 (TNS and Herb. of Kobe Univ.). SUMATRA. Mt. Djanten (Mt. Talang), above Bukit Gompong Estate, about 1600 m., P. Groenhart 9415 (BO, TNS). JAVA. Mountain Garden of Tjibodas, elevation about 1400 m. S. Kurokawa 2164 (TNS). AUSTRALIA. Queensland: Toowoomba, Hartmann s.n. (syntype of *P. tenuirima* f. *corallina*, MEL 5902). New South Wales: Western side of the road, Lindsay Highway 7 miles north of Tenterfield, elevation about 1100 m, S. Kurokawa 5384 (DUKE, MEL, LD, TNS). Northern side of Moonpah Road on granite boulders, 1 mile from Dorrigo-Tyringham Road, elevation about 670 m, S. Kurokawa 5345 (TNS). Moonbi Lookout, Moonbi Ranges, Main Divide, 17 miles north of Tamworth, elevation about 800 m, S. Kurokawa 5151 (TNS). Large boulder, just north of Reedy Creek Bridge, Windsor to Singleton Road, S. Kurokawa 5124 and 5125 (TNS). A half mile down stream from Colo River Bridge, Hawksbary District, S. Kurokawa 5107

(TNS). Mt. Wilson, Blue Mountains, elevation about 1000 m, S. Kurokawa 5031 (TNS), 5032 (H, MEL, TNS, UPS), and 5058 (TNS). Ad Parramatta. Woolls (syntype of *P. tenuirima* f. *corallina*, MEL 5905). North of Jacob's River Bridge, 12 miles south of Ingebyra, elevation about 340 m, S. Kurokawa 6531 (PERTH, TNS). Western bank of the Snowy River, 20 miles south of Ingebyra, elevation about 300 m, S. Kurokawa 6542 (TNS; distributed as Lich. Rar. Crit. Exs. no. 74). Victoria: Little River Gorge, 5 miles east of Wulgulmerang, R. Filson 8336 (MEL, TNS). Kew, Wilson s.n. (MEL 5903). Coliban River Falls, 4 miles SW of Redesdale, R. Filson 5084 (MEL). No precise locality, Wilson s.n. (TNS). Western Australia. Mt. Chudalup, 31 miles south of Pemberton, elevation 750 ft, S. Kurokawa 6678 (TNS). Tasmania. Exposed sea shore, Seven Miles Beach, near Hobart, G.C. Bratt 3460-a (TNS).

3) **Parmelia grayana** Hue, Nouv. Arch. Mus. Paris, ser. 4, **1**: 184, 1899.

Parmelia simodensis Asahina, Journ. Jap. Bot. **17**: 72, 1941.

When Hale (1965) reduced *P. simodensis* to a synonym of *P. grayana*, he cited two specimens collected in Japan; the holotype of *P. simodensis* and Kurokawa 58630 (recently distributed as Lich. Rar. Crit. Exs. no. 77). Both specimens, however, were collected at the same locality (Mt. Buzan, Shimoda, Prov. Izu). In Japan, therefore, the species has been known only from one locality, while it was reported from South Africa, India, and Canary Islands by Hale (1965). Recently, however, I found a second locality in Japan for this species. In addition, *P. grayana* occurs in eastern Australia, as shown below.

Specimens examined. JAPAN. Prov. Mikawa: Irako Cape, Atsumi Peninsula. On rocks. S. Kurokawa 69006 (TNS). AUSTRALIA. New South. Wales: On rocks by Boyd River, Old Glen Innes Road 3 miles east of Dalmorton. S. Kurokawa 5371 (TNS) and 5372 (MEL, TNS).

4) **Sticta limbata** (Sm.) Ach., Meth. Lich. 280, 1803.

Lichen limbatus Sm. in Sm. et Sowerb., Engl. Bot. **16**: tab. 1104, 1803 (not seen).

Although this species is rather well-known in northern and central Europe and North America, it has never been reported from Japan. In the summer of 1967, I collected two specimens of this species in Hokkaido; the one growing on trunks of *Picea glehnii* and the other on trunks of *Abies sacha-*

linensis (Pl. XVIII, fig. 2). Another specimen collected on Mt. Fuji was found among unnamed specimens of *Sticta* kept at TNS, though the substratum was unfortunately not indicated. Last spring (1968), I made a trip to Mt. Fuji and was able to collect some more materials of *S. limbata*, growing on more or less shaded trunks of *Sorbus commixta*. This species is apparently one of the circumpolar elements, being rather rare in Japan. Morphologically it resembles *S. gracilis* and *S. duplolimbata*. However, it is clearly distinguished from them by the presence of marginal or submarginal soredia, because *S. gracilis* has no soredia and *S. duplolimbata* is isidiate. The color reaction of the medulla is negative with various reagents and no crystal was demonstrated by ordinary microchemical methods in this species.

Specimens examined. Hokkaido. Prov. Nemuro: Ochiishi, elevation about 50 m, on trunks of *Picea glehnii*. S. Kurokawa 65763 (TNS). The same, on trunks of *Abies sachalinensis*. S. Kurokawa 65823 (TNS). Honshu. Prov. Kai: Komitake Shrine, Mt. Fuji, elevation about 2400 m. S. Kurokawa 64013 (TNS). The same, on trunks of *Sorbus commixta*. S. Kurokawa 68062 (TNS).

Literature cited

Asahina, Y. 1954. Lichenologische Notizen § 100–102. Journ. Jap. Bot. **29**: 33–34. Hale, M.E., Jr. 1965. A monograph of *Parmelia* subgenus Amphigymnia. Contr. U.S. Natl. Herb. **36**: 193–358. Kurokawa, S. 1956. Notulae miscellaneae Lichenum japonicorum (3). Journ. Jap. Bot. **31**: 351–352.

Explanation of Plate XVIII

Fig. 1. *Letharia togashii* Asahina, growing on trunk of *Picea glehnii* at Ochiishi, Hokkaido. Fig. 2. *Sticta limbata* (Sm.) Ach., growing on trunk of *Abies sachalinensis* at Ochiishi, Hokkaido. Fig. 3. *Parmelia erumpens* Kurok., growing on rock at western bank of Snowy River, N.S.W., Australia.

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1) *Letharia togashii* Asahina　今までに本州（富士山）と北海道（石狩川源流）の各一ケ所から報告されていたが，北海道でわりに広く分布しているようである。

2) *Parmelia erumpens* Kurok.　本種はオーストラリアでは各地で普通に見られ，スマトラ，ジャバにも産する。神戸大学の中西哲博士は1963年に台湾で本種を採集され，1966年に私は三河，鳳来寺山で採集した。カラクサゴケ (*P. saxatilis*) に近

いが，パスチュールをつけるのではっきり区別できる。日本新産。

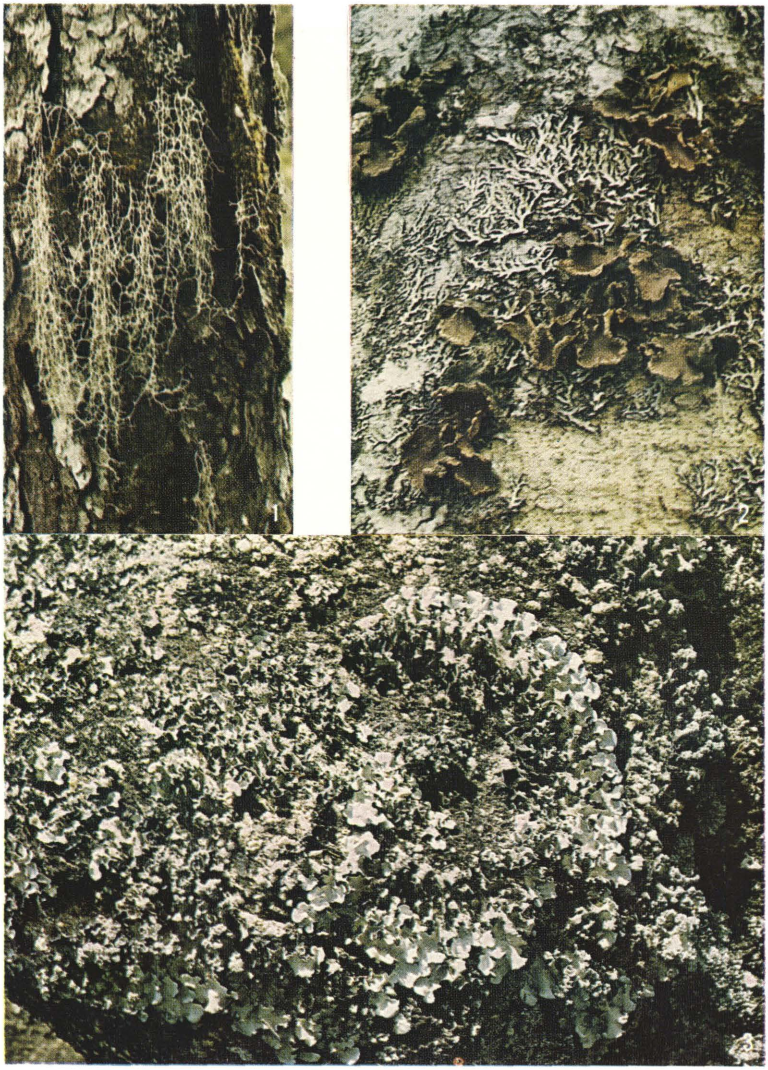
3) *Parmelia grayana* Hue 日本では長い間 *P. simodensis* の名で呼ばれていたが，1965年に Hale は *P. grayana* に合併した。日本における産地として伊豆，下田，武山だけしか知られていなかったが，渥美半島，伊良湖岬で発見された。なお，本種がオーストラリアに産することも報告した。

4) *Sticta limbata* (Sm.) Ach. (コフキセンスゴケ 新称) エツキセンスゴケに似ているが，裂片の縁から表面にかけて粉芽をつけるので，コフキセンスゴケの和名を与えた。日本では北海道，根室と富士山五合目，小御嶽神社附近でしか採集されていない珍らしい地衣である。日本新産。

□津山 尚 編著: **日本の椿**，T. TUYAMA (ed.) Camellias of Japan. Publ. by Takeda Sci. Found. Printed & distrib. by Hirokawa Publ. Co. Tokyo 1969. 武田科学振興財団発行，広川書店発売 全2巻 昭和44年発行，定価 18.000 円。この書物の大部分はツバキの園芸品種の解説と420図の原色写真からなる。一般の園芸書では解説が花に限るが，こゝでは枝葉に及び，葉は特に重点をおかれ，葉縁と葉脈をはっきりさせた写真があって花の各写真と対比されることは特色がある。これら数百のツバキは主として日本のヤブツバキ，ユキツバキを先祖としている。ツバキは日本の植物分布を示す代表種の一つで，単にツバキ油などの実用性，花の観賞のみにとどまらず生態的に重要な種なので，本書は品種のみならず，ツバキの形態分化，分布，生態，生理，細胞，遺伝，分類，園芸，病害，害虫，栽培の起原や歴史など多くの専門家の研究が集められ，いわばツバキ学をなしている。なお品種を記述した古版の「百花椿名よせ色付」と「つばき名よせ帖」を複刻している。図は白色，桃色，濃桃色，赤色，濃赤色，ふけや条線のあるものの順でその中では一重から半一重，二重，八重，また小花から大花へと順を追っている。

本書は欧文を主とし和文を副としている。いわば日本のツバキを広く国外に紹介している。外国でもツバキは多くもてはやされ，例えばロスアンジェルス近郊のハンテントン図書館，美術館附属の日本庭園傍のツバキ庭園は多数の品種を植えて一般の人を楽しませている。外国でツバキの品種がどのようになっているか，日本の品種とくらべるのも興味のあることであって，本書は広く世界のツバキ愛好家，研究者に求められるであろう。本書のように生品をとりあつかった大著は津山氏のような情熱家にしてはじめて可能であると共に多くの人の力ぞえではじめて成功したものと思う。

(木村陽二郎)



S. Kurokawa: Rare lichens of Japan